

EGG-CAPSULES OF *BUCCINUM UNDATUM* L.*

BY OLOF O. NYANDER.

The interesting paper on "Egg-capsules of the Ten-ribbed Whelk," by Charles W. Johnson (Occasional Papers, Boston Soc. Nat. History, Vol. 5, pp. 1-4, pl. 1, May, 1921), brings to mind a collecting trip which in this connection may prove of interest.

In the summer of 1906 I spent one month collecting Silurian fossils in Cabscook Bay from Eastport to Whiting, Maine, and as my work was mostly in the tidal zone I could not help but observe the common marine shells while collecting fossils at Broad Cove, near Eastport, where the average tide is about 22 feet. Shackford Head is at the west of the cove and near to the deep water; there is an isolated rock outcrop just above low water. In a part of this rock sheltered from the sun and among the rock weeds was hanging a large bunch of *Buccinum undatum* egg-capsules, and three large specimens were depositing their eggs in different parts of the bunch, which was 6 inches long, nearly 3 inches broad and 2 inches high. As this mass of eggs was hanging free about 5 or 6 feet above low-water mark, the observation was perfect. I took the shells and the egg-capsules which are now in my collection. This large egg-cluster must have been the nest of many individuals, as I think they only deposit a few eggs at a time and sometimes only one. During my collecting trip I found many eggs of *B. undatum* deposited on the rocks, on the rock weeds and on dead shells, ranging from one single capsule to 25 and probably sometimes a hundred or more. See Plate I, fig. 1.

I have always been interested in the eggs of shells, and at Newport, R. I., I collected, between 1886-92, many of the egg-capsules of *Busyon carica* and *B. canaliculatum*, as they are very common on the east shore of the island. When collecting at Lake Worth, Florida, in March, 1892, I found some very large

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strings of egg-capsules of *Busycon perversum*; one in my collection is 27 inches long and full of young shells. On this same string are attached seven capsules of *Fasciolaria distans* full of young shells.

EPIPHRAGMOPHORA FIDELIS (GRAY) NEAR SAN FRANCISCO BAY?

BY G. DALLAS HANNA.

Several years ago Edson (THE NAUTILUS, XXV, 18, 1911) gave a list of land mollusks which he found at the high headland called San Mateo Point in San Francisco Bay. He there questioned the former record by Gifford (THE NAUTILUS, XIV, p. 144, 1901) of the above species at that locality. Button (THE NAUTILUS, XXV, 59, 1911) suggested that the specimens were perhaps exotic, having been brought to that locality in the oyster traffic which took place between Puget Sound and San Francisco Bay some years before. This was followed by Gifford (*op. cit.*, p. 60) again, who stated that he was not only positive of his identification but that he had collected the species there a second time, in 1910.

The locality is so far from the usual range of this northern species that the record seemed to warrant investigation on the ground. So far as available records show it has not been taken south of Cape Mendocino, Humboldt County, California.

The point on the bay referred to is known as Cayote Point on many maps. It is a hill of Jurassic chert about 100 feet high which projects into the bay about 18 miles south of San Francisco. A roadway leads to it across a salt marsh from Burlingame. It consists of about 300 acres, not one and one half as stated by Edson, densely wooded with eucalyptus. A few Monterey cypresses and pines have been planted here and there. The soil is very dry. The point is an island in so far as land snails are concerned. Under present conditions they could not reach the place of their own accord.

It happened that in August 1921 fire swept through the forest and consumed all leaves, sticks, grasses and underbrush, leaving only the bare ground. Among the ashes are the charred re-